

PROCEEDINGS OF THE NEW YORK ENTOMOLOGICAL SOCIETY

MEETING OF NOVEMBER 18, 1930

A regular meeting of the New York Entomological Society was held at 8 P. M., on November 18, 1930, in the American Museum of Natural History; President Wm. T. Davis in the chair, with fifteen members and eleven visitors present.

Mr. Mutchler exhibited the sumptuous publication of the researches of Mr. Snodgrass; Mr. Davis read a review of the same from the *Boston Herald*.

The president announced with regret the approaching departure, on December 1, of Mr. Harry G. Barber for Washington, D. C., where he will study the Hemiptera of the U. S. National Museum. His private address will be 2222 Q St.

Jumping Beans used in a game, and sent from Germany by Mr. Sherman, were exhibited.

Mr. Bromley read a paper on "Hornet Habits" and exhibited specimens of the local species, *Vespa crabro*, *V. maculata*, *V. maculifrons*, *V. erinacea*, and some other species, including those from the southern and western states, with an interesting discussion of their nest-making, feeding and other habits.

His remarks were discussed by Messrs. Bird, Davis and Lacy.

Mr. Wm. T. Davis called attention to the fact that migrating dragonflies take great hazards and sometimes come north too early in the spring. He mentioned the early appearance of *Anax junius* on Staten Island on March 30, 1930, following a period of warm weather which in turn was followed by very cold weather. He also stated that on May 27, 1930, about 10 A. M., an *Epiæschna heros* was seen hawking up and down Stuyvesant Place, St. George, Staten Island. It was so cold at the time that he was surprised to see the dragonfly so active. On the morning of May 28 a male *heros*, likely the same individual seen on the previous day, was found lying on its back and in a dying condition, on the piazza of 146 Stuyvesant Place. It was still very cold when the dragonfly was found. The specimen was exhibited. On May 11, 1919, a female *heros*, that had died, was found on Staten Island.

Mr. Davis also showed some *Lasius claviger* ants that were found to be swarming on November 14, 1930, in the garden of 146 Stuyvesant Place, Staten Island. On November 6, ice to the thickness of $\frac{5}{8}$ of an inch had formed in a pail of water within ten feet of where the ants swarmed on the 14th, a much milder day with a temperature of 57 degrees at the time the ants were observed. This species of ants was found swarming on the Island on November 7, 1922, and individual females were found walking on the

sidewalks of Tompkinsville in January and February, 1919. At the time the *Lasius* ants swarmed on November 14, a worker of *Prenolepis imparis* Say was observed swooping about near the nest as if interested in the proceedings.

MEETING OF DECEMBER 2, 1930

A regular meeting of the New York Entomological Society was held at 8 P. M., on December 2, 1930, in the American Museum of Natural History; President Wm. T. Davis in the chair, with sixteen members and five visitors present.

Mr. Carl T. Parsons, Rye, N. Y., and Mrs. Alan Sloan Nicolay, 11 Seymour St., Montclair, New Jersey, were elected members of the Society.

Mr. Leng exhibited "Manual of the Genera of Beetles of America, north of Mexico," by Dr. J. Chester Bradley, of Cornell University.

Mr. Mutchler read a letter from Dr. Lutz, with greetings also from Messrs. Schwarz and Huntington, his companions at Barro Colorado.

Mr. Nicolay made an address on "Beetling at Greenville, Maine, and Difficulties of Classifying Carabidae," illustrated by specimens and photographs and punctuated by humorous remarks. His headquarters at Greenville had been at Squaw Mountain Inn where considerable comfort was found within easy reach of a forest extending to the Canadian border. A clearing about an abandoned saw mill proved to be a locality for *Cicindela longilabris*, a brook near the fish hatchery yielding *Bembidion chalceum*, and sphagnum swamps producing interesting species of *Loricera* and *Elaphrus*. Mrs. Nicolay was fortunate in securing one specimen of *Cicindela harrisii*, and the dead hemlocks were attractive to several species of *Chrysobothris*. Commenting on local collecting during the past summer. Mr. Nicolay recorded finding *Cicindela patruela* at Mt. Pocono, and his dissent from Dr. Walther Horn's placing it as a variety of *sex-guttata*; also the discovery of a new locality for *Cicindela marginipennis* on an island in the Delaware River near Milford, Pennsylvania, where on July 4 it was abundant on a pebbly beach. He had found at Jones Beach, on Long Island, a maritime collecting ground where *Cicindela dorsalis* was common at the middle of July and where *Dyschirius*, *Omophron*, etc., occurred.

Mr. Nicolay ended his address with praise for the care with which the collection of the late Thomas L. Casey has been housed in the U. S. National Museum, whereby his types are readily compared; and the difficulties that result from alterations made in some other collections which have not been similarly treated. Some instances of this character were given.

Mr. Nicolay's remarks were discussed by Messrs. Hall, Angell and Mutchler.

Mr. Curran propounded an entomological conundrum, in describing from a letter received, an insect flying with something resembling a straw attached which it deposited in the water. It was supposed to be a May-fly ovipositing.

Mr. Wm. T. Davis, referring to his statement at the November meeting relative to the late swarming habit of the ant *Lasius claviger*, stated that on November 22, a rather warm day for the season, that the *claviger* ants at 146 Stuyvesant Place, had again swarmed. So far this is the latest date for their swarming on Staten Island. Some of the ants collected on November 22 were shown. He also exhibited some blackberry leaves that had been attacked by the common Orange-rust (*Gymnoconia interstitialis*). The leaves of the blackberry were collected in June and placed between the leaves of a book, where subsequently by reason of the rust they became very attractive to some *Dermestid* larvæ.

MEETING OF DECEMBER 16, 1930

A regular meeting of the New York Entomological Society was held at 8 P. M., on December 16, 1930, in the American Museum of Natural History; President William T. Davis in the chair, with thirteen members and five guests present.

In the absence of Mr. Leng, Mr. Bromley acted as secretary.

The following were appointed by the chair as members of the nominating committee: Dr. Lutz, *chairman*; Mr. Huntington, and Mr. Curran.

Mr. Bell related the experience of Mrs. Bell and himself during their trip to the West in May, June and July of this year. For several weeks they made their headquarters at the ranch of Mr. A. R. Wainscott about seven miles east of Fallon, Nevada. This state, while sixth among the states in area, is very sparsely populated, for the most part it lies on the Great Intermountain Plateau, with an elevation of from 4,000 to 8,000 feet above sea-level, with some of the mountains exceeding 10,000 feet elevation. Between the mountain ranges are broad, flat valleys which present desert conditions. It is a region of very little rain, but the soil is very fertile and bountiful crops can be raised when water is available. The ranch where they stayed is in the Carson-Truckee Irrigation Project and the principal crop of this and the surrounding ranches is alfalfa, which grows luxuriantly, usually three and sometimes four cuttings a year being made; grain is also raised and there are large herds of cattle, sheep and horses; there are also large rabbit farms where thousands of these animals are raised, principally for western markets. The elevation in this region is about 4,000 feet and the air is very clear and dry; the days quite warm and the nights delightfully cool. On account of the dryness of the air, one could collect in the desert without discomfort, even though the temperature was high, as perspiration evaporated so quickly that one's clothes were always dry.

The scenery was beautiful, as on all sides there are mountains, though some of them were far away. The dry clear air made them appear much closer; the high, snow-capped Sierras near Reno, 75 miles away, seemed much nearer, and the Silver Range about twenty miles to the east, continually changed color as the angle of light varied; to the north the Blue Mountains were colored as their name indicates, and to the south Mt. Grant

reared a great snow-capped dome that glistened in the sunlight like a giant iceberg.

The region is treeless, except for the cottonwood and a few elms, Chinese and Carolina poplars brought to the ranches, and in the ravines in the mountains and foot-hills, junipers and pinyons; the higher elevations have coniferous forests, but there were none in this vicinity.

There was considerable desert flora, the principal bushes being grease-wood, rabbit-brush and sage, with a multitude of small flowering plants and cacti, which transformed the desert into a beautiful garden of brilliant colors when they bloomed in great profusion during the latter part of May and most of June. There are also large and small alkaline flats on which little or nothing grows and which look like snow-covered fields.

The smaller animal life was very numerous in the Irrigation District and along the border of the desert, jack and cotton-tail rabbits abounded; the beautiful California quail were very tame, coming into the door-yard to feed and calling from the fence-posts about the ranch; Chinese pheasants were often seen along the roadside and in the garden and continually crowded from the alfalfa fields where they nest; wild ducks of several species teemed in the alkali ponds and irrigation ditches; great white pelicans frequented the ditches or flew in long wavy lines across the desert; the stately and handsome avocet waded in the shallow water in the salt marsh regions and many of them were observed lying dead along the borders of the shallow ponds, perhaps poisoned by the excessive alkaline content of these waters. There were also a great many other birds too numerous to mention in detail. The desert teemed with lizards of many species, but few snakes and these of non-poisonous species. Of the larger animals, deer are found in the wooded ravines and canyons of the mountains, on the high mesas wild horses still exist in reduced numbers and coyotes are still to be found in parts of the desert.

A mile below the ranch is the Piute Indian Reservation; the Indians have pretty much accustomed themselves to the white man's ways and have engaged in agriculture, stock-raising and other pursuits.

Among the many interesting things to be seen in this region he mentioned Walker Lake, about fifty miles to the south, about thirty miles in length and teeming with fish; the lake lies between two ranges of low mountains, along those on the west side runs the state highway, built along their slope and following their contour; many of the lower hills on the other side of the lake are slashed with bright colors as though painted by some prehistoric artist with a giant paint brush. Large caves in the foot-hills of the Silver Range which harbor a horde of long-eared bats. The Lahontan Dam which supplies the water for the Irrigation District and the great lake which it forms by damming the Carson River and which is further fed by a canal from the Truckee River. The great salt deposit covering 1,100 acres into which borings ninety feet down have not reached the bottom, and where the salt is removed with dredges it immediately fills up again, so

that despite the large quantities removed, there is apparently just as much salt left as there was in the beginning. In the desert the evidence of volcanic activity of the past ages, and the relics of Indian life of long ago.

Although insect life abounded in both the Irrigation District and the desert and considerable material in various orders was collected, there were very few species of *Hesperiidae*, which were his especial quest, only five species being taken; on the more interesting of these he expects to later publish some notes.

After leaving the desert region, Mrs. Bell and he spent a short time at Lake Tahoe, California, a well-known region of great scenic beauty, and from there travelled by auto and mail-stage down the eastern border of California, stopping at Mono Lake and other points, where they did some further collecting. They spent several days in Los Angeles where they visited the principal points of interest in company with Mr. and Mrs. J. D. Gunder, of Pasadena; these included the Los Angeles Museum, meeting Dr. J. A. Comstock and other members of the staff; among the numerous exhibits of this fine museum especially noteworthy were the very fine groups of African animals, and the great collection of skeletons, in perfect condition, of prehistoric animals taken from the asphalt beds in California. They also visited Mr. and Mrs. Hal Newcomb, the well-known dealer in insects, of Pasadena; and one day was spent in a visit to Catalina Island.

Mr. Bell showed an excellent series of photographs illustrating the type of country in the various parts of Nevada and California that he visited and also showed the members a collection of *Hesperiidae* collected in this region. He further showed some Indian arrow-heads as well as some strikingly marked stones from the desert, one of which closely resembled the huge canine tooth of a carnivore.

Mr. Davis then showed the Society some samples of Orthoptera and Odonata collected by Mr. Bell and commented on the resemblance of *Libellula forensis* to the common *L. pulchella* of the East. Mr. Davis remarked that certain predaceous insects range across the continent, in contrast to many herbivorous insects like the cicadas, which do not have such an extensive range.

Mr. Davis also exhibited a series of cicadas collected by Mr. Bell and commented on the long-continued song of the *Okanoganas*, common in Nevada in contrast to the shorter songs of the species of *Tibicen*, common in the East. He then exhibited a series of cicadas of the genus *Tibicen* collected on sidewalks in Flushing, L. I., including *linnei*, *canicularis* and *chloromera*.

Mr. Lacy then spoke on the variations of the butterfly *Colias eurytheme* and exhibited an extensive collection of the summer form taken by him this season. He noted that the variations were most marked in the female.

Mr. Lacy also showed a cerambycid beetle from Colorado, *Typocerus sinuata*, which was reported as producing sound by the movement of the thorax against the abdomen.

Mr. Curran exhibited some *heliconias* from Panama, which showed some remarkable resemblances between species in the same genus. This was the more remarkable as the two species resembling each other belong to different divisions of the genus as evidenced by the difference in the genitalia.

Dr. Bequaert showed the Society two specimens from Yucatan, which served as a remarkable instance of Tautopsis. One specimen was a large green cyrtid fly (*Lasia* n. sp.) and the other a green bee (*Euglossa cordata*). Dr. Bequaert stated that not until he had actually removed the insect from the net, did he perceive that it was a fly and not a bee as first thought, the resemblance being so marked.

Mr. Mutchler showed the Society a copy of Dr. L. O. Howard's recent work on the "History of Applied Entomology" in which the members evidenced a great deal of interest.

Mr. Bromley exhibited a lucanid and several histerids, the latter taken from a dead water moccasin in Lake Worth, Florida, and declared by Mr. Ballou to be extreme southern records for the species concerned.

Mr. Davis commented on the passing of Dr. Emerton and spoke of his work on spiders and his varied interests. Mr. Bell read a paper on some interesting phases of natural history in Jamaica, by Miss Perkins of that Island.

MEETING OF JANUARY 6, 1931.

A regular meeting of the New York Entomological Society was held at 8 P. M., on January 6, 1931, in the American Museum of Natural History; President Wm. T. Davis in the chair, with eighteen members and eleven visitors present.

The report of the nominating committee was received and, there being no other nominations, their nominees were elected by an affirmative ballot cast by Mr. Davis, as follows:

President, Andrew J. Mutchler.

Vice-President, E. L. Bell.

Secretary, Miss Elizabeth Sherman.

Treasurer, Gaylord C. Hall.

Librarian, Frank E. Watson.

Curator, A. J. Mutchler.

Executive Committee, Wm. T. Davis, Wm. Moore, Herbert F. Schwarz, Howard Notman, Henry Bird.

Publication Committee, Harry B. Weiss, Chas. Leng, John D. Sherman, Jr., C. E. Olsen.

FRANK E. LUTZ,

C. H. CURRAN,

E. I. HUNTINGTON,

Nominating Committee.

Mr. Mutchler, having assumed the chair, called upon Mr. E. I. Huntington for his paper on "Collecting Rambles in Panama," with illustration

by lantern slides. Mr. Huntington had, in company with Dr. Lutz and Mr. Schwarz, spent the time between November 5 and December 5 at Barro Colorado Island with visits also to Summit, the Chiva Chiva Trail, Corozal and Paitilla Point. He described the laboratory and other buildings and features of the Island, showing many illustrations thereof, and spoke in a general way of the mammals, birds and insects. For a more complete account he referred his hearers to Dr. Frank M. Chapman's book, "My Tropical Air Castle."

Of particular interest was his account of the collections made by Dr. Lutz of the Army Ant and his queen of which a specimen was shown. Dr. Lutz added a little on this subject, pointing out that the severity of the bite the Army Ant inflicts had been somewhat exaggerated.

Mr. Leng exhibited Dr. J. Chester Bradley's "Manual of the Genera of Beetles of America, north of Mexico," a remarkably successful attempt to bring within a single volume the characters of all the genera by means of dichotomous keys. For the first time since the publication of the Leconte Classification these characters are thus made available to students.

Mr. Curran added that the key to the families was already required to be reprinted.

Mr. Davis, recalling his previous remarks on *Lasius claviger* swarming on November 22, added that he had seen one walking, very timidly, on the snow on January 2. He exhibited the "Life of Thomas Say" by Harry B. Weiss, with praise, commenting on the election of Mrs. Say as an honorary member of the Natural Science Association of Staten Island, and on Dr. Howard's remarks anent the father of Say, although a prominent merchant of Philadelphia, now being remembered for the fame attained by his son.

Mr. Davis also exhibited the minute book of the Entomological Club of New York, written by Henry Edwards in 1881, and recording among other items the election of himself, then a boy of 16, as a member on nomination by Mr. August R. Grote. He added some recollections of Mr. Grote's residence on Staten Island and subsequent life in Germany.

The minutes of the club disclosed many items of interest in connection with Neumogen, Elliott, Halset, Snow, and the publication of "Papilio."

Mr. Curran, supplementing the remarks of Mr. Davis, described Prof. Snow's escape from Apache Indians with his butterfly net as evidence of mental weakness.

MEETING OF JANUARY 20, 1931

A regular meeting of the New York Entomological Society was held at 8 P. M. on January 20, 1931, in the American Museum of Natural History; President Andrew J. Mutchler in the chair, with eighteen members and eight visitors present.

The minutes of the preceding meeting were read and approved.

The president announced the appointment of committees, etc., as follows: Auditing Committee—E. L. Bell, Dr. E. K. Schwarz, Dr. E. H. Janvier. Field Committee—Mr. and Mrs. Nicolay.

Program Committee—C. H. Curran, H. B. Weiss, Dr. J. L. Horsfall.

Delegate to the N. Y. Acad. of Sci.—Wm. T. Davis.

Mr. J. W. Wilson, of Pierson, Florida, was elected a member.

Mr. Davis exhibited Proc. of the Junior Soc. of Nat. Hist. of Cincinnati, Ralph Dury, secretary, and commented upon the article therein by Charles Dury, who was 83 years old on Nov. 14, 1930.

He also showed "A Contribution to the Knowledge of Florida Odonata" by Dr. C. Francis Byers, published as number 1 of University of Florida Publications, and a further article by the same author in the *Florida Naturalist*.

Dr. Leonard spoke with lantern slide illustrations on "Entomology in Porto Rico." He described the Federal Experiment Station at Mayaguez established in 1900, and the Insular Experiment Station at Rio Piedras established in 1910, and of the good work done by Tower, Wolcott, Dozier Smyth, Sein, Danforth and others at these institutions. In addition he mentioned Garcia and Dexter at the University, Mills of the Federal Plant Quarantine, Hoffmann at the School of Tropical Medicine, and Kramer of the Forest Service as contributing, also Osborn working for Sugar Centrals. He spoke of the principal economic problems being studied, insects affecting sugar, tobacco, coffee, citrus fruits, pineapples, cotton and vegetable crops.

His remarks were discussed by Mr. Curran who exhibited the MSS. of his second paper on Porto Rican Diptera, by Mr. Davis who exhibited a box of Cicadidae, containing the two species known from Porto Rico, by Mr. Leng who described the work in progress on the Coleoptera and who recalled Dr. Krug's early efforts to make them known.

Dr. W. Dwight Pierce, present as a guest, spoke of his efforts to classify the exceedingly variable species of Diaprepes.

Mr. Mutchler exhibited four boxes of Porto Rican longhorns and speaking of them, the Elateridae, and other families thus far studied, stated the number of species now known to occur as about 740.

Dr. Leonard in reply to questions said that, while the climate was suitable for banana growing, it was not a commercial proposition. The root weevil was all over the island in the trees grown by the natives, and no control measures were used by them.

MEETING OF FEBRUARY 3, 1931

A regular meeting of the New York Entomological Society was held at 8 P. M. on February 3, 1931, in the American Museum of Natural History; President Andrew J. Mutchler in the chair, with twenty-two members and fifteen visitors present.

The minutes of the preceding meeting were read and approved.

Mr. Hall's report as treasurer, audited by Mr. Bell, was received and accepted with thanks.

Dr. Alfred Weed, Charles Egri, and Dr. Creighton were proposed for membership.

Dr. D. Dwight Pierce spoke on the "Insect Problems in the Philippines." He was ordered to the Philippines in the summer of 1927 by the Honolulu Trust Co., and was employed by the Victoria Milling Co. and the North Negros Sugar Co., in the study of sugar cane insects. He spoke of the cordial reception given him by the Entomological Society of Honolulu, of the work of Dr. Carl F. Baker, Dr. Chas. S. Banks, whose interest in the silk worm has led him to the development of a new strain which is disease proof, and of Dr. L. B. Uichanco and Otanes, the two official entomologists in the Philippine Archipelago, also of Dr. A. W. Lopez, the entomologist of the Philippine Sugar Association.

Dr. Pierce told of his furnished house, which was ready for him when he arrived, under which he had his laboratory, with its water table to afford isolation in breeding. In regard to the climate, his tests showed the very small range in temperature and humidity, the excessive rainfall, ten days being the longest period known without rainfall, and the importance of wind for comfort. His territory was the northwest corner of the island of Negros, comprising 200 or 300 haciendas or plantations, which yield an all-year-round harvest, except for September and October, when the mills and equipment are reconditioned.

Dr. Pierce's chief problems in the laboratory were: the training of his assistants (natives), and a continual struggle with ants, fungi, mites, moisture in the glass tubes and also rodents; mold was avoided by lights in the cabinets. In the field he found that the greatest damage was being done to the cane by the dead heart moth borer, *Olethreutes*, and by fly borers. With great difficulty he located an egg parasite, individuals of which he planted in groups of 10, then 25, 50 and finally 100 as nuclei in each hacienda. These reduced the damage being done to the cane from 30 to 2 per cent., in a little over a year, by never letting the parasitism fall below 70 per cent. Dr. Pierce then spoke of the cultural system he had found necessary, viz.: the burning of stalks and all trash, seed selection, soil nourishment and reclamation, and close cutting of the stalks. His parasite theory is that of redistribution of the parasites. He said it was found impractical to use chemicals as they poisoned the many weeds and plants which were food for the natives. The superstitions of the natives, who were his helpers, were a great hindrance to him, as was their belief in fairies, one of which was the queen termite found in all termite mounds, and also their faith in witch doctors. Dr. Pierce then explained the importance of the plant complex, the bearing that every plant has on sugar cane.

In answer to Dr. Pierce's remarks on the edibility of grubs, snails, bamboo, etc., Mr. Curran mentioned the fact that the swarms of locusts in the Far East are often used as food by the natives.

Dr. Pierce said that he wished to present his list of "Insects, Their Injuries and Their Parasites" which he found in Negros, a list which con-

tains more species than has been listed from any other one island, such as Cuba, Java, or Hawaii.

Dr. Felt mentioned the possibility of control by modifying the environment.

Dr. Pierce said that a happy medium of temperature, humidity, pressure and light was necessary and described his efforts to rid a garden in California of snails and slugs, without using arsenic or bran bait. He found that Ferris sulphate produced an electrical reaction when the slug came into contact with it which killed the slug; also this chemical killed the worms in dogs and goats, and was beneficial to the soil.

Mr. Ballou mentioned table salt as an effective killer of slugs.

Mr. Curran read a communication from S. W. Bromley in Columbus, Ohio.

President Mutchler exhibited a new publication of the Biological Monographs and Manual, "Migration of Butterflies," by C. V. Williams.

Mr. Sherman said that it had been reviewed in "Science" by L. O. Howard.